Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) An optical device, comprising:

(a) an active semiconductor region~~, for providing~~ configured to provide gain to signal light passing through said active region;

(b) a signal-light reflector~~, for reflecting~~ arranged to reflect the signal light through the active region in a direction out of the plane of the active region; [[and]]

(c) a pump-light reflector~~, the pump-light reflector being~~ arranged to reflect pump light so as to form a pump standing wave in the device; and

an absorber ~~that absorbs~~ configured to absorb light at a wavelength of the signal light[[;]]
~~characterised in that the absorber is arranged~~ and located at a position in the device at which there is no or substantially no pump light.

2. (Currently amended) An optical device as claimed in claim 1, in which the active region, the signal-light reflector, the pump-light reflector and the absorber are comprised in a monolithic unit.

3. (Currently amended) An optical device as claimed in claim 1 ~~or claim 2~~, in which the absorber is arranged at or near a node in the pump standing wave.

4. (Currently amended) An optical device as claimed in claim 3, in which the active region comprises [[the]] an element for interacting with light in the device.

5. (Original) An optical device as claimed in claim 4, in which the signal light forms a signal standing-wave by reflection from the signal-light reflector.

6. (Original) An optical device as claimed in claim 5, in which the absorber is arranged at or near an anti-node in the signal standing-wave.

7. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, further comprising a second device for interacting with light, comprising a gain element that absorbs the pump light to provide gain to the signal light.

8. (Currently amended) An optical device as claimed in claim 7, in which the ~~pump-light-absorbing~~ gain element is arranged at or near an anti-node in the signal standing wave.

9. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, in which the signal-light reflector comprises a metal mirror or a semiconductor mirror or a dielectric stack.

10. (Currently amended) An optical device as claimed in any ~~any preceding~~ claim 1, in which the pump-light reflector comprises a metal mirror or a semiconductor mirror or a dielectric stack.

11. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, further comprising a second pump-light reflector positioned for reflecting the pump light back towards the pump-light reflector.

12. (Original) An optical device as claimed in claim 11, in which the second pump-light reflector comprises a metal mirror or a dielectric stack.

13. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, which has [[being]] a monolithic or composite laser structure fabricated with a bottom Bragg reflector that reflects the pump and the signal, such that ~~that the~~ a pump field forms a standing wave.

14. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, in which the pump-light reflector and the signal-light reflector are comprised in a single reflector.

15. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, comprising a second signal-light reflector arranged for reflecting the signal light back towards the signal-light reflector.

16. (Original) An optical device as claimed in claim 15, in which the second signal-light reflector comprises a metal mirror stack.

17. (Currently amended) An optical device as claimed in claim 15 [[or 16]], in which reflections from at least the signal-light reflector and the second signal-light reflector result in a cavity resonance or a sub-cavity resonance at a signal wavelength at which the active region provides gain, and the device further comprising a source of pump light at a pump wavelength, wherein the signal-light reflector [[also]] reflects pump light at the pump wavelength.

18. (Currently amended) An optical device as claimed in claim 17, in which reflections from at least the signal-light reflector and the second signal-light reflector result in a cavity resonance or a sub-cavity resonance at the pump wavelength.

19. (Currently amended) An optical device as claimed in ~~any preceding~~ claim 1, the device being arranged to provide pulses of signal light.

20. (Currently amended) An optical device, comprising:

(a) an active semiconductor region~~, for providing~~ configured to provide gain to signal light passing through said active region;

(b) a signal-light reflector~~, for reflecting~~ arranged to reflect the signal light through the active region in a direction out of the plane of the active region; and

(c) an absorber[[;]]

~~characterised in that the absorber is arranged~~ located in a position in the device ~~that is~~ selected to control absorption of pump light by the absorber.

21. (Currently amended) A method of engineering an optical device, the device comprising:

(a) an active semiconductor region~~, for providing~~ configured to provide gain to signal light passing through said active region;

(b) a signal-light reflector, ~~for reflecting~~ arranged to reflect the signal light through the active region in a direction out of the plane of the active region; and

(c) an absorber;

~~characterised in that~~ the method ~~comprises~~ comprising the step of controlling absorption of pump light by the absorber [[by]] comprising selecting a position for the absorber in the device.

22. (Currently amended) An optical device, comprising:

(a) an active semiconductor region~~, for providing~~ configured to provide gain to signal light passing through said active region;

(b) a signal-light reflector~~, for reflecting~~ arranged to reflect the signal light through the active region in a direction out of the plane of the active region; and

(c) a pump-light reflector[[;]]
~~characterised in that the pump light reflector is~~ arranged between the signal light reflector and the active region.

23. (Currently amended) A device as claimed in claim [[20]] 22, further comprising an element for interacting with signal light in the device, the element being arranged between the pump light reflector and the signal light reflector.

24. (Currently amended) A device as claimed in claim [[21]] 23, in which the element is a saturable absorber.

25. (Currently amended) An optical device comprising:
(a) an active semiconductor region ~~, for providing~~ configured to provide gain to signal light passing through said active region;
(b) a signal-light reflector~~, for reflecting~~ arranged to reflect the signal light through the active region in a direction out of the plane of the active region;
(c) a pump-light reflector~~, the pump light reflector being~~ arranged to reflect pump light so as to form a pump standing wave in the device; and
~~(d) a~~ an element, arranged in the pump standing wave, [[that]] effective to absorb[s] pump light to provide gain to the signal light,
~~characterised in that~~ the element [[is]] being arranged at or near to an antinode of the pump standing wave.

26. (Currently amended) An optical device as claimed in claim [[26]] 25, in which the element is arranged such that pump light is absorbed in the same region of the active region ~~as a region~~ from which signal light is emitted.

27. (Currently amended) An optical device as claimed in claim [[26]] 25, in which the element is a barrier region adjacent to a quantum well.